

Abstract

A fiber optic cable includes multiple optical fibers extending from a low-pressure environment into a high-pressure environment. At a junction region, the optical fibers are substantially free of any coating, while the fibers include a coating in the low- and
5 high-pressure regions. The fibers are metallized in the junction region, and an epoxy layer is bonded to the metallization. A protective, conductive housing is positioned around the cable. The fibers in the low-pressure region are coupled to communications electronics, and the pattern is repeated as needed to form a needed length of communication cable.